



CHAPTER 3. ECOSYSTEM MANAGEMENT

“Sustaining our Nation’s military training and testing lands through ecosystem management is among the most important DOD environmental goals”⁹

Fort Wainwright’s natural resources program has traditionally been based on multiple-use management philosophies. Military training, however, is the primary land use. This philosophy will continue through 2002-2006, with one important addition – maintaining functional ecosystems is now the goal of the Fort Wainwright land and natural resources management programs. “Realistic training lands” are often quoted as essential needs by military trainers. For training to be realistic, the

military must train in non-degraded ecosystems with natural vegetation and terrain features. Such ecosystems must also be maintained for the long-term because no new training lands are being acquired. This means that functional ecosystems on Army lands must be sustained indefinitely. Thus the future of Fort Wainwright and its military mission, as well as the community that depends upon the installation, relies on maintaining functional ecosystems.

⁹ Sherri W. Goodman, Deputy Under Secretary of Defense (Environmental Security)

3.1 Ecosystem Management Goals and Objectives

DOD has endorsed ecosystem management nationwide. The DOD goal with regard to ecosystem management is: *“To ensure that military lands support present and future training and testing requirements while preserving, improving, and enhancing ecosystem integrity. Over the long term, that approach shall maintain and improve the sustainability and biological diversity of terrestrial and aquatic (including marine) ecosystems while supporting sustainable economies, human use, and the environment required for realistic military training operations.”*¹⁰ Ecosystem management goals and objectives all contribute to one or more of the overall natural resources program goals of stewardship, military training support, compliance with environmental laws, quality of life, and integration. The specific ecosystem management goals and objectives for Fort Wainwright are listed below:

- Provide an indicator of ecosystem integrity, status of sensitive species or communities, and other special interests.
- Implement an adaptive management strategy by providing current and predictive natural resources information that will affect land use decision-making.
- Pinpoint areas where management could positively affect ecosystems.
- Protect and conserve all biological communities, including game and nongame species.
- Ensure that Fort Wainwright’s natural resources program is coordinated with other agencies and conservation organizations with similar interests.
- Sustain natural landscapes required for the training and testing necessary to maintain military readiness.
- Provide the greatest return on DOD’s investment to preserve and protect the environment.

- Expedite the environmental compliance process and help avoid conflicts.
- Engender public support for the military mission.
- Improve the quality of life for military personnel.

Objectives and guidelines for achieving these goals are listed below:

- Develop a vision of ecosystem health.
- Develop priorities and reconcile conflicts in land use decisions.
- Maintain and improve the sustainability and native diversity of ecosystems.
- Administer with consideration of ecological units and evolutionary time frames.
- Support sustainable human activities.
- Develop coordinated approaches to work toward ecosystem health.
- Use benchmarks to monitor and evaluate outcomes.
- Implement through installation plans and programs.
- Support the military mission.
- Use joint planning between natural resources managers and military operations personnel.
- Integrate conservation of ecosystem integrity into INRMP, ITAM, and other planning protocols.
- Involve internal and external stakeholders up front.
- Emphasize the regional (ecosystem) context.
- Involve scientists and use the best science available.
- Concentrate on results.

¹⁰ Department of Defense Instruction Number 4715.3, Environmental Conservation Program, May 3, 1996, specifically Enclosure 6.

3.2 Ecosystem Management Planning

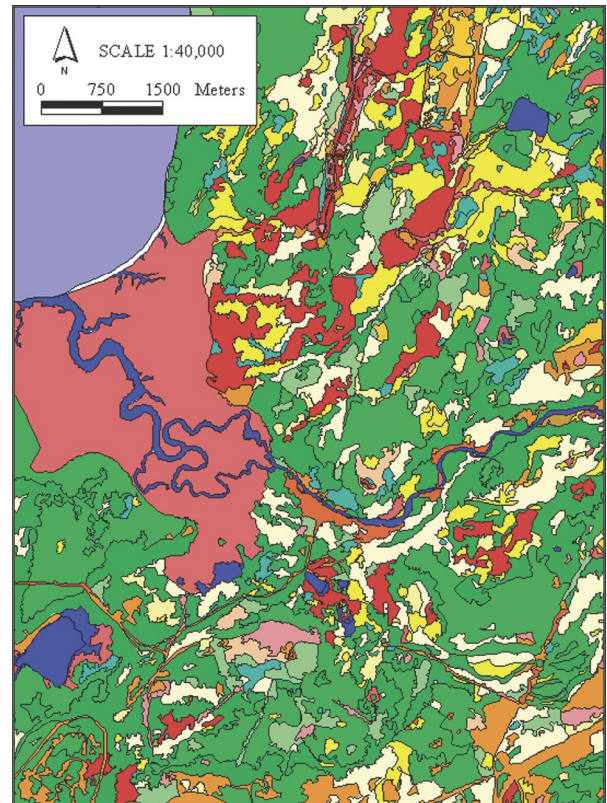
Ecosystem management program planning and management includes all the planning, budgeting, contract oversight, and organization necessary to implement the ecosystem management program. The primary emphasis for this component of the ecosystem management program is the preparation and update of the ecosystem management action plan every five years.

3.2.1 Ecosystem Management Plan

Description and Justification: Prepare, update, and implement an ecosystem management action plan for Fort Wainwright. The ecosystem management program at Fort Wainwright strives to integrate the use of the land by a large number of organisms, including humans. This integration of land uses, or management of multiple-uses, is accomplished at a broad, landscape scale (see Section 3.4 for more discussion of the ecosystem management program). An important part of the ecosystem management plan is the selection of species for management and the determination of specific monitoring and management actions for each species. The ecosystem management plan also develops a GIS-based protocol to help with the resolution of current and predicted land use conflicts. This is done both for conflicts between habitats for wild species and habitats for human land uses, and between the two major human land use categories – recreational and military land use. Updates of the ecosystem management plan are required by Public Law 106-65 (Military Land Withdrawal Act) as mitigation for the land withdrawal LEIS and Public Law 86-797 (Sikes Act) every five years to implement the INRMP. Per Memorandum DAIM-ED-N, 21 March 1997, this component of the INRMP is a class 1 requirement.

Measures of Effectiveness:

- Complete, update, and maintain an ecosystem management plan.



Landscape scale habitat mosaics are developed from Ecological Land Classification areas that share similar vegetation, landforms, soils, hydrology, and topography.

- Maintain ecosystem integrity at the landscape scale while allowing the military to train and maintain combat readiness.
- Involve federal and state resources agencies in ecosystem management planning, and the public in review of the ecosystem management program.

Management History: The first ecosystem management plan for Fort Wainwright was completed in 2001.

Current Management: Current management actions to update the ecosystem management plan will cease in 2002. If this INRMP is not approved and funded, no new ecosystem management plan will be prepared, updated, or implemented. Policies already in place in the current ecosystem management plan will continue.

Proposed Management: See Table 3-1.

Table 3-1. Ecosystem Management Plan.

OBJECTIVE	RESPONSIBLE FOR IMPLEMENTATION	PRIORITY	IMPLEMENTATION				
			2002	2003	2004	2005	2006
Evaluate and make changes to the ecosystem management plan as needed, following an adaptive management approach.	USARAK Conservation	High	x	x	x	x	x
Prepare a comprehensive update of the ecosystem management plan for the period 2007-2011.	USARAK Conservation	High					x
Complete NEPA documentation for the 2007-2011 ecosystem management plan.	USARAK Conservation	High					x

Other Management Alternatives Considered and Eliminated: There are no alternatives to maintaining a current ecosystem management plan. Per the Sikes Act, AR 200-3, and Memorandum DAIM-ED-N, 21 March 1997, this management action plan must be updated every five years.

3.2.2 Aerial Monitoring Management Plan

Description and Justification: Prepare, update, and implement an aerial monitoring action plan for ecosystem management at Fort Wainwright. Because of accessibility problems, aerial monitoring of Fort Wainwright's land is necessary to keep track of military, recreation, trespass, and wildlife use of training lands. The aerial monitoring plan discusses the specific actions necessary to accomplish aerial monitoring at Fort Wainwright. Updates of the aerial monitoring management plan are required by Public Law 106-65 (Military Land Withdrawal Act) as mitigation for the land withdrawal LEIS and Public Law 86-797 (Sikes Act) every five years to implement the INRMP. Per Memorandum

DAIM-ED-N, 21 March 1997, this component of the INRMP is a class 1 requirement.

Measures of Effectiveness:

- Complete, update, and maintain the aerial monitoring management plan.
- Increase efficiency of monitoring efforts on Fort Wainwright through advance planning of aerial monitoring.
- Involve federal and state resources agencies in planning for aerial monitoring, and the public in review of the aerial monitoring plan.

Management History: The first aerial monitoring action plan for Fort Wainwright was completed in 2001.

Current Management: Current management actions to update the aerial monitoring plan for ecosystem management will cease in 2002. If this INRMP is not approved and funded, no new aerial monitoring plan will be prepared, updated, or implemented. Policies already in place in the current aerial monitoring plan will continue.

Proposed Management: See Table 3-2.

Table 3-2. Aerial Monitoring Management Plan.

OBJECTIVE	RESPONSIBLE FOR IMPLEMENTATION	PRIORITY	IMPLEMENTATION				
			2002	2003	2004	2005	2006
Evaluate and make changes to the aerial monitoring plan as needed.	USARAK Conservation	High	x	x	x	x	x
Prepare a comprehensive update of the aerial monitoring plan for the period 2007-2011.	USARAK Conservation	High					x
Complete NEPA documentation for the 2007-2011 aerial monitoring plan.	USARAK Conservation	High					x

Other Management Alternatives Considered and Eliminated: There are no alternatives to maintaining a current aerial monitoring plan. Per the Sikes Act, AR 200-3, and Memorandum DAIM-ED-N, 21 March 1997, this monitoring action plan must be updated every five years.

3.3 Ecosystem Management Inventory and Monitoring

The inventory and monitoring components of the ecosystem management program will be conducted using the concept of adaptive management. Simply put, adaptive management involves learning from one's mistakes and then applying those lessons to the management program. Adaptive management will be used to evaluate the results of all the inventory and monitoring programs at Fort Wainwright and ecosystem management actions as well, and this information will then be used to make changes as needed. The inventory and monitoring programs listed in Chapters 3 through 7 of this plan, and especially Chapter 5, are used as the primary sources of data for the process of adaptive management in the ecosystem management program.



Monitoring is an important component of ecosystem management.

3.4 Ecosystem Management Program



Recreational and military use are integral components of ecosystem management.

3.4.1 Maintenance of Ecosystem Integrity

As stated above, the goal of the ecosystem management program at Fort Wainwright is to maintain ecosystem integrity while continuing to train soldiers to a high level of military readiness. Ecosystem integrity, sometimes referred to as biodiversity, includes the concept of biological diversity as well as the ecological and evolutionary processes that contribute to the maintenance of functioning ecosystems and the production of biological diversity itself. Ecosystem integrity also encompasses several levels and geographic scales in the hierarchy of life, including ecosystem diversity, community diversity, species diversity, and genetic diversity (Noss and Cooperrider 1994). USARAK is using an ecosystem management process to maintain ecosystem integrity on Fort Wainwright by managing for a large number of species simultaneously, managing for a variety of habitats and structural vegetation types, and striving to maintain natural processes on the landscape.

DOD is developing a policy for the management of ecosystem integrity that will use the INRMP process as the implementation tool. A first step in this process was the preparation of A Department of

Defense (DOD) Biodiversity Management Strategy (The Keystone Center 1996). In that report the authors note that the challenge is “to manage for biodiversity in a way that supports the military mission.” The Keystone Center strategy identifies the INRMP as the primary vehicle to implement protection of ecosystem integrity on military installations.

Conservation of ecosystem integrity is a large commitment, and ecosystem management is increasingly recognized as an important means to achieve this commitment. Although ecosystem management is not mandated by law, its implementation is a proactive approach that will help in the process of complying with existing environmental laws such as the Endangered Species Act, Sikes Act, Clean Water Act, and NEPA.

3.4.2 Ecosystem Management Program Procedures

The basic strategy of the ecosystem management program, in attempting to both maintain ecosystem integrity and promote military training, is to integrate the use of the land by a large number of species, including humans. Critical to the ecosystem management program at Fort Wainwright, but a common theme in all ecosystem management programs (Grumbine 1994; Yaffee et al. 1996), is the treatment of human land use as a component of the ecosystem. Under ecosystem management humans are not viewed as outsiders but as members of ecosystems, just as other wild species are members of ecosystems. Human use of the land is directly incorporated into the management program from the start (see below). Then with a set of land users (wild species and humans), the goal is to manage at scales large enough to maintain a set of critical habitats and habitat corridors for a large number of species while also facilitating use of the land for military training. The scale of management is currently the entire post at Fort Wainwright. Eventually, coordination in land management with adjacent landholders will more adequately represent regional ecosystems, especially for larger bird and mammal species. Currently we are limiting management to lands directly under Army control. In our decision-making processes, however, we will,

as much as possible, take into account the landscapes that are contiguous with Fort Wainwright.

The ecosystem management program at Fort Wainwright uses a habitat-based approach. This is because: (1) habitats are critical for the continued survival of animal and plant populations, (2) it is next to impossible to directly monitor the population sizes of all the important species occurring in any single ecosystem, and (3) we can manipulate vegetation and create or restore habitats for some species. The first step in constructing this habitat-based model for ecosystem management is to determine the set of species to be managed. In selecting species for management, we used four objectively determined criteria representing both biological and human social attributes, and avoided strong subjectivity in the selection process. The list focused on species of conservation concern, important predator and prey species, and game species. Currently there are 90 species on this list for Fort Wainwright (36 birds, 31 mammals, 16 vascular plants, 6 fish, and 1 amphibian).

With a set of species to manage, we then determine the habitat preferences for each species and create spatially explicit data for each species in a GIS. Habitat preferences are assigned using the combined knowledge of many biological field workers in Alaska and local knowledge of the natural history at Fort Wainwright. Habitat preferences are currently based upon a digital vegetation map for Fort Wainwright, but in the near future these data will be created using an ecological land classification for the area. This ecological land classification will categorize areas sharing similar vegetation, elevation, topography, landforms, soils, and hydrology.

To model the integration of land uses across the landscape, we make use of existing GIS data layers representing how the military uses the land and how recreational land uses occur across Fort Wainwright. Initially we start with a formal designation of areas to be set aside for intensive human use, areas for less intensive human use (some alteration of habitats may occur), and areas in which no alteration of natural habitats will occur. This process is described in more detail in Chapter 5, Section 5.4.4.2, see especially Figure 5-7. By performing overlay operations of these human land use GIS

data layers upon each other and sequentially overlaying each human land use data layer upon each of the species habitat preference data layers (above), we can pinpoint areas where conflicts in land use may occur. We can also use this same process to predict how proposed changes in human land use, for example, will affect the habitats of numerous species on Fort Wainwright. Using a landscape approach on the GIS, we will then evaluate the predicted changes in habitats for each species based upon the amount of preferred habitat remaining for each species elsewhere on post, and the geographic pattern of those habitat patches. In other words, we will evaluate both the size and connectivity of remaining habitat patches to decide whether a proposed habitat change will be biologically notable or not.

These spatial data on current and predicted conflicts between military and recreational land uses, and between human land uses and species' preferred habitats will be used heavily in the land use decision-making processes at Fort Wainwright. They will not eliminate the hard choices that often have to be made, but they will provide much needed data for a number of species, for example, that have traditionally been overlooked in such land use decisions. These data will also provide a larger, landscape and multi-species perspective from which to make land use decisions.

It is important to remember that in all land use decisions, military training is by definition the primary land use at Fort Wainwright. Other appropriate land uses will be accommodated if they fit within the framework of the military mission. The maintenance of ecosystem integrity, however, as noted at the beginning of this chapter, often is not at odds with the goals of military training. The following sections discuss the details of the integration of public access for recreational purposes, and the integration of the management of natural resources with the land use activities conducted by the military.

3.4.3 Ecosystem Users

As mentioned above in Section 3.4.2, human land use under ecosystem management is considered a component of the ecosystem. Range Control is

the primary entity responsible for integrating the various human activities across the landscape. Fort Wainwright is on public domain land withdrawn for military purposes and therefore the military has primary use of the land. The ITAM program exists to spread that use across the landscape into areas that can best fit with the type of training being conducted. This minimizes disturbance to the ecosystem from the military mission. Military use, however, does not occur at all locations at all times of year. This allows for recreational users, subsistence users, and commercial users to all utilize Fort Wainwright in varying degrees.

3.4.4 Land Use

This section defines the various land uses that occur on Fort Wainwright.

3.4.4.1 Land Use and the Military Mission

Military Use: Military land use on Fort Wainwright can be separated into two broad groups: urban areas and training areas. Urban areas include most of the developed areas on an installation. Training areas also can be separated into two broad categories – maneuver training and weapons training. Maneuver training is conducted primarily in training areas. A training area is space for ground and air combat forces to practice movements and tactics as specified in the unit's Army Training and Evaluation Program (ARTEP). Different unit types may work in support of one another (combined arms), or the unit may operate on its own to practice a specific set of ARTEP tasks. Included in these areas are bivouac sites, base camps, drop zones, artillery and mortar firing points, and other miscellaneous training areas. Each training area is managed and scheduled by Range Control. Weapons training also has land-based requirements. Weapons training occurs primarily on firing ranges, and munitions from firing ranges land in surface danger zones or impact areas. Military land use categories on Fort Wainwright are shown in Figure 3-1. Descriptions for each military land use category are listed in Table 3-3.

Natural Resources Management Use: There are a number of natural resources management land uses on Fort Wainwright. ITAM, forest management, fish and wildlife management, habitat management, wetlands management, watershed management, fire management, endangered species management, special interest areas management, pest management, cultural resources management and minerals management all have spatial components and land-based requirements. These land uses and their associated programs and projects are discussed in greater detail in the following sections of Chapter 3 and in Chapter 4 through Chapter 7.

Recreation and Subsistence Use: Hunting, trapping, fishing, off-road vehicle use, skiing, boating, and cutting firewood all have land-based requirements. Maps showing areas open for various recreation and subsistence activities are found in Section 6.2.4.

Commercial Use: Commercial timber sales is the primary commercial use that has a spatial component and land-based requirements. Maps showing potential areas for commercial timber sales are found in Section 5.2.4.

Rights-of-way, Easements and Leases: There are a number of existing rights-of-way, easements, and leases on Fort Wainwright. The Alaska pipeline, the Richardson Highway, GVEA Intertie and other utility corridors all have land-based requirements.

3.4.4.2 Surrounding Land Use

Fort Wainwright is within the Fairbanks North Star Borough, which is lightly populated with several scattered developments. Fairbanks, on the western boundary of Fort Wainwright, is the largest city in the borough with a population of over 30,000, making it the second largest city in the state (1990 census data). The main cantonment area of Fort Wainwright lies within Fairbanks city limits. Residential developments have grown eastward, abutting the installation boundary along the North Post, the main cantonment area, and the western side of the small arms range complex.

Both TFTA and YTA are relatively isolated and reasonably protected from boundary encroachment, except for remote homesteads. Other developed areas include Fox and Chatanika to the north,

and North Pole and Eielson Air Force Base (AFB) to the east and south. Fort Greely is 90 miles to the southeast. The George Parks Highway, Steese Highway, Richardson Highway, Alaska Railroad, and the Trans-Alaska Pipeline bisect the area.

3.4.5 Public Access, Encroachment, and Trespass

Public access and use of Fort Wainwright is an important component of ecosystem management. The following section discusses military land use and policy concerning access, trespass, and encroachment.

3.4.5.1 Public Access Policy

While the Army has been training soldiers around the world for more than a century, it also has provided access to quality recreational opportunities for soldiers, their families, employees, and the general public.

If recreational or management activities conflict with military activities, the military mission comes first. USARAK, however, has shown that these two goals can be met even in the most rigorous and demanding of training environments.

Traditionally, there have been ample opportunities for the public to participate in recreational activities at Fort Wainwright. In maintaining a liberal policy of public access, USARAK relies on a responsible public to adhere to installation policies designed to promote physical security, minimize safety hazards, and protect natural and cultural resources. Access to Fort Wainwright for recreation is authorized at specific entrances only, and all recreation activities must be conducted in accordance with applicable rules and regulations.

The Sikes Act states: “*Consistent with the use of military installations to ensure the preparedness of the Armed Forces, each integrated natural resources management plan prepared... shall, to the extent appropriate and applicable, provide for... (F) sustainable use by the public of natural resources to the extent that the use is not inconsistent with the needs of fish and wildlife resources; (G) public access to the military installation that is necessary or appropriate for the use described in subparagraph*

Figure 3-1. Military Land Use.

See FWA INRMP Maps\FWA INRMP FIG03-01.PDF.

Figure 3-1. Military Land Use.

General Land Use Type	Primary Military Land Use Category	Secondary Military Land Use Category	Acres	Description
Urban Areas	Cantonment Area		3970 acres	The area where most of the buildings are located, including buildings for office use, indoor training facilities and housing for soldiers and their families.
	Recreation Areas		436 acres	Areas are designated as recreation areas when recreation use is the primary land use. Examples include Glass Park Recreation Area and the Chena Bend Golf Course.
	Ammunition Storage		132 acres	Ammunition storage areas are off-limits areas where ammunition is stored. These areas are typically fenced off and are not compatible with other land uses.
Training Areas	Weapons Training	Firing Ranges	221 acres	Ranges are semi-permanent or permanent facilities for weapons firing, demolition, assault courses, or other specific training, usually with associated buildings or berms. This includes firing ranges, assault courses, urban assault areas, etc. Firing ranges are areas which are controlled and restricted for firing live ammunition from direct fire or line-of-sight weapons systems at targets within a controlled area. Typically, a range has left and right boundaries that extend from the firing line forward to just past the last target array. Training ranges are normally reserved and equipped for practice and qualification in weapons delivery and/or shooting at targets. Further, training ranges constitute a functional complex that normally includes a range control tower with associated firing points, lanes or pits, a cleared or graded area, target system emplacements, and a firing flag and flagpole, in addition to equipment-in-place such as target control systems, target systems, targets and fixed PA system components. A range could include an area for back blast safety zones, which can have a secondary use as non-dudded impact area or maneuver area.
		Non-Dudded Impact Areas	38,363 acres	A surface danger zone or a non-dudded impact area is an area that has designated boundaries within which ordnance that does not produce duds will impact. This area is composed mostly of the safety fans for small arms ranges. The primary function of the impact area is to contain weapons effects as much as possible using earthen berms or natural terrain features. These impact areas may be used for maneuver, at the cost of curtailing use of weapons ranges.
		Dudded Impact Areas	48,475 acres	A dudded or high intensity impact area is an area having designated boundaries within which all potential dud-producing ordnance will detonate or impact. Vehicle bodies are sometimes placed in the area to act as targets for artillery direct and indirect fire. The primary function of the impact area is to contain weapons effects as much as possible using earthen berms or natural terrain features. Impact areas containing potential unexploded ordnance may not be used for maneuver.

Table 3-3, continued

General Land Use Type	Primary Military Land Use Category	Secondary Military Land Use Category	Acres	Description
Training Areas	Maneuver Training Areas	Maneuver Areas	314 acres	Maneuver areas generally are open to semi-open areas where vehicles can move without running into obstacles such as trees, range buildings, streams, wetlands, lakes, etc. Military activities that occur in maneuver areas include conducting offensive operations, conducting tactical movement, movement to contact, relocating a unit to a new site, defending assigned area, relocating/establishing new area of operations, trail construction, mobility and counter mobility operations, reducing obstacles with equipment, and constructing obstacles with equipment.
		Bivouac Areas	12,672 acres	Bivouac areas are areas where units stop together for a period of time. Most often, bivouac areas are semi-open to semi-closed areas where the units “camp out.” Activities conducted in bivouac areas are assembly area operations, combat service support operations, and unit security and defense operations.
		Foot Use Areas	769,265 acres	Foot use areas are areas that show little or no impacts from military use. Foot use areas are where units are on foot and are conducting movement to contact and land navigation.
		Drop Zones	200 acres	Drop zones or landing zones are cleared areas used for dropping troops and equipment that are maintained by mowing and hydro-axing. These areas should have vegetation but are probably highly disturbed. Military activities include airborne assault, air assault in support of combined arms, aeromedical evacuation, and landing zones for rotary wing aircraft.
		Firing Points	11 acres	Firing points are localized areas from which either artillery or mortars are fired. These areas are often open areas with high vegetation disturbance. Firing points are sometimes also designated by survey markers.
		Airstrips	44 acres	Airstrips and assault strips are semi-permanent or permanent facilities for aircraft landing and taking off that are not paved or part of an urban area.
		Road Corridors	5 acres	Road corridors are defined as semi-permanent or permanent access ways (including ditches and the open right-of-way on each side of the road) that are improved, semi-improved or receive some type of maintenance.
		Rights-of-Way	40 acres	Rights-of-way are any areas used for utility or pipelines (electric, gas, or communication). Areas bordering either side of improved roads are part of the road corridor and are not considered a separate right-of-way polygon in this case.
		Excavations	5 acres	Excavations are gravel pits or military engineer training areas and similar types of areas that show signs of digging, either manual or mechanical.

(F), subject to requirements necessary to ensure safety and military security; ...”

DOD Directive 4715.3, Environmental Conservation Program, May 3, 1996, states: “... *Those [DOD] lands shall be made available to the public for educational or recreational use of natural and cultural resources when such access is compatible with military mission activities, ecosystem sustainability, and with other considerations such as security, safety, and fiscal soundness. Opportunities for such access shall be equitably and impartially allocated.*”

Paragraph 2-10 of Army Regulation 200-3, Natural Resources – Land, Forest, and Wildlife Management, states that access by recreational users “... *will be within manageable quotas, subject to safety, military security, threatened or endangered species restrictions, and the capability of the natural resources to support such use; and at such times as such access can be granted without bona fide impairment of the military mission, as determined by the installation commander.*”

USARAK’s policies regarding public access are within both the spirit and letter of federal law and Army and DOD’s policies, and they will be continued in 2002-2006.

3.4.5.2 Public Access and Military Land Use

The amount of limitations and restrictions on public access depends on the type of military use. Military use can be broken down into four general categories that affect access.

Training areas and non-firing facilities: Public access into training areas is allowed subject to safety restrictions and military security, when access does not impair the military mission, as determined by the installation commander. Compatible uses generally include natural resources management, habitat improvement, mineral or vegetative resources extraction, hunting, fishing, trapping, bird watching, hiking, skiing, dog sledding, and ORV use. In general, activities that are not compatible with training areas include any permanent nonmilitary structures, easements, or leases.

Firing ranges, surface danger zones, and non-duddled impact areas: Public access into firing ranges, surface danger zones, and non-duddled impact areas is normally not allowed due to conflicts with the military mission. However, there are times during the year when public use does not conflict with military training and public access is allowed into these areas. Compatible uses generally include natural resources monitoring, range maintenance, fire prevention and suppression, hunting, fishing, and trapping. In general, activities that are not compatible with firing ranges, surface danger zones and non-duddled impact areas include any permanent nonmilitary structures, easements, or leases.

Duddled impact areas: Public access into dudded impact areas is prohibited because of the hazard of unexploded ordnance. Compatible uses include remote monitoring of natural resources and military impacts, and prescribed burning to reduce fire hazards and improve habitat. Activities that are not compatible with dudded impact areas include any on-the-ground natural resources management, digging, mineral extraction, commercial timber sales, hunting, fishing, trapping, bird watching, ORVs of any kind, dog sledding, airboats, camping, new construction, easements, and leases.

Urban Areas: Public access into urban areas is allowed subject to safety restrictions and military security, when access does not impair the military mission, as determined by the installation commander. Compatible uses generally include natural resources management, habitat improvement, mineral or vegetative resources extraction, bird watching, hiking, and skiing. In general, activities that are not compatible with urban areas are hunting and trapping.

3.4.5.3 Encroachment Policy

Encroachment may be defined as legal activities and land use on or next to a military installation that are incompatible with long-term military mission sustainability and success. Building residences and subdivisions up to the installation boundary often results in conflicts with the public resulting from noise and dust. USARAK is committed to working with surrounding landowners to minimize these types of potential conflicts.

Over the last ten years, USARAK has been inundated with numerous requests and proposals from state, federal, and municipal government agencies, businesses, utilities, clubs, organizations, and individuals for authorization or permission to use Army lands on a long-term basis for nonmilitary purposes. Requests often have included commercial or long-term real estate interests involving rights-of-way, easements, land use permits, leases, outgrants, land transfers, exclusive use areas, and special concessions.

The term “military purpose,” with regard to land use, means programs, activities, and facilities necessary to accomplish the military mission and those support elements crucial to its implementation. Any additional long-term nonmilitary uses will create the potential for adverse impact on training and thereby threaten Fort Wainwright’s viability as a military installation. Besides the mission, USARAK is mandated by both law and common sense, through sound stewardship, to preserve the integrity and health of the environment. Only by doing this can the military be assured of maintaining the realistic “backdrops” and scenarios crucial to its training.

It is, therefore, the position of USARAK to generally deny requests for nonmilitary uses of Fort Wainwright properties if those requests include or involve a requirement for long-term real estate commitments such as leases, easements, or land transfers, or if they create a potential adverse impact on the military mission or the environment. The only exceptions to this will be when such actions clearly result in tangible benefits to the military training mission or to the environment. These situations will be carefully scrutinized and evaluated by appropriate staff elements. No longer is “good public relations” alone a justifiable reason to sacrifice limited and crucial training lands. It is also the position of USARAK to adopt a policy favoring temporary, low impact uses of Fort Wainwright such as, but not limited to, hunting, fishing, trapping, skiing, dog mushing, snowmachining, ATVs in specified areas, firewood cutting, boating, picnicking, berry picking, and bird watching.

3.4.5.4 Trespass

Illegal entry onto Fort Wainwright is the most common form of trespass. Most illegal activities either directly or indirectly affect natural resources. Since trespass is often the precursor to most illegal range activity, reducing illegal trespass could also reduce illegal range activity.

Crossing the installation boundary or the internal boundary of an off-limits area without approval constitutes trespass. Little of the installation boundary is fenced at this time and even less of it has been posted with installation boundary signs, which adds to the problem. However, trespass is often premeditated. Posting the boundary would reduce accidental trespass, but the effect on premeditated trespass would be minimal. Boundary marking can only be effective in concert with enforcement efforts against premeditated trespass.

Trespassing is a problem on Fort Wainwright, with most incidents occurring in TFTA are related to commercial and private fly-ins and airboat traffic for hunting. Trespass in YTA is most frequently related to moose hunting incidents in the Stuart Creek Impact Area (dudded). Failure to enforce hunting, fishing, and trapping check-in requirements makes trespassing difficult to control on Fort Wainwright.

Structures built on Fort Wainwright without approval from the federal government are considered illegal trespass. Generally, structures are built for use as base camps for hunting and trapping. Problems with trespass structures on Fort Wainwright were identified as early as 1982.

The Post Judge Advocate concluded that “... *the present individuals have no right to construct the cabins. Moreover, paragraph 2-11, AR 405-80 clearly sets out the procedures to be followed in the event of an unauthorized use. The command should take immediate action to discontinue use of the land and obtain compensation for its use to date. If the individuals can be located the command should request them to vacate the land. If efforts are not successful the matter should be referred to the division district engineer for further action.*” Specific concerns regarding unauthorized cabins are listed below.

- Trespass structures cause interference with military training missions.
- Trespass structures are “incompatible” land uses.
- In the past, post commanders have allowed trespass structures to remain on Army lands.
- Persons building trespass structures deny the public authorized uses of those parcels of land.
- The Army has uncertain responsibilities to protect trespass structures from wildfires, even if it is a “let-burn” fire.
- The Army’s liability in the event a person is hurt in a trespass structure is uncertain.
- Once a precedent is set allowing structures to be built on Army lands, it is difficult to change.

In 1987 it was stated that trespass structures could be important to trapper “survival,” and it was noted that it was not in the Army’s best interest to “anger” these trappers. This action resulted in an Encroachment Notice being posted on trespass structures with the following statements:

- These structures are negative to the military mission and protection of natural resources, and future action may be taken to reduce or eliminate this conflict by destroying or moving encroachment structures.
- Unauthorized improvements on Army-controlled lands become the property of the Army, but such improvements may be removed by the builder within six months, with prior approval of the garrison commander.
- Until the Army decides to take action against these improvements, they may remain at the builder’s and user’s risk if permission is obtained to enter Fort Wainwright. Cabins remain open to the public for temporary recreational purposes on a first-come, first-serve basis; the Army assumes no responsibility for loss or damage of these structures or their contents, and no adverse possession rights accrue

against the government because of the continued existence of the improvements.

The Fort Wainwright Resource Management Plan (BLM and U.S. Army 1994) proposes that only the federal government and private developers authorized by the government may erect or maintain structures on Fort Wainwright. All unauthorized use of the land or resources will be investigated and either permitted or stopped. All unauthorized structures are subject to possession by the government following proper notice.

In 1998 USARAK took action to begin the process of removing trespass structures. Public announcements were made whereby owners had until October 1, 1998, to register structures. Registered structure owners had an additional two years from that time to remove them. Since April 1, 1999, USARAK has started to remove unregistered structures and their possessions. These illegal structures will not be protected during wildfires except when lives are threatened. This course of action will be continued until all trespass structures are removed from Fort Wainwright.

3.4.6 Fort Wainwright as Part of a Regional Ecosystem Management Effort

Regional Bird Partnerships: The U.S. Fish and Wildlife Service (USFWS) plans to conduct a habitat assessment of wetlands in the Fairbanks area, primarily to categorize bird use of different wetlands classifications. The Waterways Experiment Station wetlands delineation on Fort Wainwright may be useful to this project. No additional wetlands inventories are planned for the next five years.

The Alaska Bird Observatory conducted bird surveys, via USFWS, on a proposed YTA-TFTA connecting route and in the cantonment area. The observatory also collects migratory bird information through the use of mist nets at Creamers Field in Fairbanks. This station is set up within 10 miles of Fort Wainwright.

A USARAK biologist is part of a Partners in Flight working group that is developing a list of species of concern for interior Alaska. This effort will con-

tinue during the next five years. Annual Breeding Bird Surveys (BBS) and trumpeter swan surveys are conducted by USARAK as part of a larger continent-wide survey.

USFWS was consulted during the development of the Fort Wainwright Wetlands Management Plan. Habitat assessments of wetlands were done on post, primarily to categorize bird usage of different wetlands classifications. Riverine, permanent, and semi-permanent emergent vegetation were identified as sensitive areas and have been incorporated into the environmental limitations overlays used to plan for training.

Regional Habitat Restoration Goals: ADF&G uses prescribed burning for habitat restoration (reducing the amount of black spruce) on state lands west of Wood River. This burning is facilitated through the *Western Tanana Flats Prescribed Burning Plan* (State of Alaska 1995). USARAK has adopted the below listed goals and objectives from this plan for habitat restoration on all of Fort Wainwright:

- Reduce the coniferous cover type within each burned area by at least 75% to increase the proportion of herbaceous or deciduous woody cover types.
- Produce vegetative sprouting on existing deciduous trees and shrubs or seedling germination of deciduous trees and shrubs on at least 75% of each burned area.
- Maintain a mean fire interval of approximately 100 years within the central Tanana Flats.
- Increase the pregnancy rate to 75-100% and twinning rate to 15-25% for adult female moose on the Tanana Flats.
- Increase the quantity and/or quality of forage, nesting, and cover conditions for a variety of vertebrate wildlife (particularly large herbivores) in selected ignition areas while maintaining a diversity of vegetative types and age classes at the landscape scale.
- Enable moose forage (forbs, shrubs, and deciduous trees) to proliferate on burned sites by direct seeding or vegetative means (root/rhizome

or crown/stump sprouting) after several burns over a range of severity.

- Maintain or enhance wildlife use or viewing opportunities.
- Break up contiguous expanses of fire-prone forest fuels with areas containing early- to mid-seral vegetative types that are less likely to sustain fires with intense burn behaviors.
- Maintain a diverse mix of vegetation cover types and age classes, including early-successional forage, on the winter range of moose. Improve the productivity (i.e., pregnancy rates, twinning rates, age of first reproduction) of the moose population on the Tanana Flats.
- Reduce the risk and expense of large, intense wildland fires and potential for wildland fire escape onto adjacent land ownerships.
- Reduce the potential for protracted periods of heavy smoke in nearby populated areas.
- Develop a coordinated program with land and resources managers for adjacent lands on the Tanana Flats to describe and meet mutual habitat and fuels management objectives, to the degree possible, within various agency policies and priorities.
- Increase military access and maneuverability in the Tanana Flats.

This plan includes discussions of preburn considerations, public notice of planned burns, burning prescriptions, ignition methods, smoke management considerations, holding plan, contingency plan for fire escape, communications and coordination, and monitoring and evaluation. This plan could be used as the basis for a Fort Wainwright prescribed burning plan.

Fortymile Caribou Herd Regional Management: USARAK is committed to participating in the restoration of the Fortymile caribou herd. USARAK will provide support for this plan during 2002-2006, with the exception of any participation in wolf control efforts and consistent with available resources, recognizing that the installation is only on the fringe of the herd's range.

Figure 3-2. Ecological Management Units.

See FWA INRMP Maps\FWA INRMP FIG03-02.PDF.

3.4.7 Land Management Units

3.4.7.1 Military Training Areas

Fort Wainwright schedules and controls military training and other land use with military training areas. Main Post is divided into 12 numbered training areas and one live-fire range complex south of the Richardson Highway. Within these training areas are individual facilities that are scheduled separately from the surrounding land. These facilities include the Rappel Tower, Obstacle Course, NBC Chamber, Engineer Training Pit, Buffalo Trench, MOUT Facility, Splinter Village and the Biathlon Course. YTA is divided into seven numbered training areas, an impact area, one live-fire range, a hasty airstrip for C-130s and one limited access area used by the U.S. Air Force as a Technical Applications Center. TFTA is one large land mass with one hasty air strip for C-130s, an aerial gunnery and bombing range (Blair Lakes), Alpha Impact Area and several drop zones.

3.4.7.2 Ecological Management Units

Ecological management units on Fort Wainwright have been created to integrate fish, wildlife, and plant management with military and other land uses. Each ecological management unit will have a management prescription that will define compatible uses, prioritize those uses, define allowable public access, and delineate ecosystem management objectives. Prioritizing land uses for each management unit guides conflict resolution. Ecological management units on Fort Wainwright are shown in Figure 3-2.

Ecological management units follow roughly the boundaries of the ecodistricts cited in the ecological land classification for Fort Wainwright (ABR 1998). Ecological management subunits closely follow training area boundaries to allow more effective management, since the primary land use, military training, is scheduled by training area.

Each ecological management unit will be managed under one or more management levels described below:

Intensive Management: Intensive management areas are subunits that are highly populated, receive high levels of use and are easily accessible by

road. All forms of surveys, monitoring, and active management of land, forest, fish and wildlife, and recreation resources may be conducted.

Full Management: Full management areas are subunits that receive use and are accessible by road. All forms of surveys, monitoring, and active management of land, forest, fish and wildlife, and recreation resources may be conducted with exception of intensive urban area management options.

Modified Management: Modified management areas are subunits that receive use, are not accessible by road, but are open to public access. All forms of surveys, monitoring, and active management of land, forest, fish and wildlife, and recreation resources may be conducted, but may not be practical.

Limited Management: Limited management areas are subunits where public access is prohibited. Methods of ecosystem management will concentrate on remote monitoring and passive means of conducting management.

The following sections discuss each ecological management unit in terms of description and management objectives. Following each ecological management unit are descriptions of ecological subunits in terms of location, description, public access policies, compatible uses, management priorities, and summaries of management alternatives.

3.4.7.2.1 Main Post Ecological Management Unit

Location and Description: The Main Post ecological management unit is composed of two primary land use types: urban areas and light training areas. Urban areas include the cantonment area, landfill, Wainwright Army Airfield, and recreation areas such as the ski hill.

Training areas are the other primary use type. There are 12 Local Training Areas (LTAs). The Main Post area lies primarily in the Tanana River Floodplain ecodistrict. There are two ecosubdistricts of the Tanana Floodplain ecodistrict that make up Main Post.

The Chena Floodplain ecosubdistrict is a meandering stretch of the lower Chena River that includes

riverbed deposits and active and inactive floodplain cover deposits linked by surface and groundwater movement. The lower perennial river has clear water. Permafrost is absent. Vegetation includes partially vegetated river barrens, riverine willow and alder tall scrub, balsam poplar and white spruce forests, and wet sedge meadows. Forest productivity is high.

The Fairbanks Lowlands ecosubdistrict is a flat area adjacent to the Tanana River that is dominated by abandoned floodplain cover deposits and occasional organic bogs. Permafrost is nearly continuous; it is absent only in occasional collapse-scar bogs, which are the result of permafrost degradation. Common vegetation includes black spruce, tamarack, birch forests and shrub birch-ericaceous shrub.

The third portion of the Main Post ecological management unit is the Little Chena Uplands, which include the Birch Hill area of Fort Wainwright. The Little Chena Uplands are part of the Steese-White Mountain ecodistrict. These well-drained, upland areas have a loess cap over weathered bedrock. Permafrost is present on northern and lower slopes and absent on southern slopes. In permafrost-free areas, groundwater is found only at great depths, whereas in permafrost areas, soils may be saturated for portions of the growing season. White spruce-birch-aspen forests on southern slopes, black spruce forests on northern slopes, and riverine willows in small drainages are common.

Land Use: The Main Post Local Training Areas subunit is suitable for small unit training, road marches, bivouacs, and small arms firing at the range complex. The recommended time for military activities in low areas for mechanized vehicles is between freeze-up and spring break-up. Main Post Local Training Areas are capable of supporting small unit training year-round except for wetlands and other lowlands where military activities involving vehicles is limited to winter. Other compatible uses include natural resources management, habitat improvement, firewood and Christmas tree sales, fishing, trapping (on the Chena with an ADF&G permit), bird watching, hiking, skiing, camping, and ORVs in specific areas. Activities that are not compatible within the Local Training Areas

subunit include live-fire training exercises, digging in wetlands without a permit from the Corps of Engineers, and new building construction.

The Urban Areas subunit can support small unit training, classroom training, individual training, non-fire range facilities, housing, and office facilities. Other compatible uses include improved grounds management, natural resources management, fishing, bird watching, hiking, skiing, camping, and new construction. Activities that are not compatible in the Main Post Urban Area are live-fire military training, ORV use and trapping anywhere other than the Chena River.

Public Access: Public access is allowed for recreation, subject to safety restrictions and military security, when access does not impair the military mission, as determined by the installation commander (Figure 3-3a).

3.4.7.2.2 Tanana Flats Ecological Management Unit

Location and Description: The Tanana Flats ecological management unit is located south of the Tanana River from Fort Wainwright. This area contains approximately 630,000 acres of land and is bordered on the north and east by the Tanana River, on the west by the Wood River, and on the south by the 34 grid line.

The terrain is generally muskeg bogs with high ground in the southeast near Blair Lakes. Access during summer is limited to air and boat since no bridges span the Tanana River in this area. In the winter, an ice bridge can be constructed across the river, making the entire area trafficable. The Air Force has a bombing/gunnery range west of Blair Lakes that is off-limits. In winter, this unit has several areas used as drop zones: Clear Creek, Larry and the lakes themselves. A hasty airstrip for C130s is located in the southern portion, as well as an airstrip adjacent to Blair Lakes. Clear Creek Strip requires engineer work before it can be used by large airplanes. The airstrips at Blair Lakes and Clear Creek are used by recreational aircraft but are in poor condition. Alpha Impact Area is located in the northern portion and contains an impact area for indirect fire weapons and small arms firing from north of the Tanana River. Surveyed firing

Figure 3-3a. Public Access.

See FWA INRMP Maps\FWA INRMP FIG03-03a.PDF.

points are located near Range Control. There are also three surveyed artillery-firing points in TFTA for use with the Alpha Impact Area.

The Tanana Flats ecological management unit contains portions of the Tanana Floodplain ecodistrict and the Tanana-Wood River Flats ecodistrict. The Tanana Floodplain ecodistrict on Tanana Flats is divided into the Eielson-Tanana Floodplain, Rosie Creek-Tanana Floodplain, Salchaket Slough Floodplain, and Salchaket Slough Lowlands. The Tanana-Wood River Flats ecodistrict on Tanana Flats is composed of Clear Creek Lowlands, Willow Creek Lowlands, Crooked Creek Lowlands, Dry Creek Lowlands, Wood River Lowlands, Little Delta River Lowlands, Tanana-Blair Lake Uplands, and Wood River Uplands eco-subdistricts.

Land Use: The Training Area subunit is suitable for platoon, company, battalion and brigade-sized exercises and bivouacs, air-mobile operations, and ski and road marches in winter. This subunit is suitable for air-mobile operations and foot training in summer. Willow Island Research Site is off-limits to military maneuver training. Other compatible uses include natural resources management, habitat improvement, hunting, fishing, trapping, bird watching, hiking, skiing, and dog sledding. Activities that are not compatible with this subunit include mechanical digging in wetlands without a permit from the Corps of Engineers, any permanent, nonmilitary structures, easements, or leases, and ORVs unless there are 12 inches of ground frost and 6 inches of snow pack on the ground.

The Alpha Impact Area subunit is suitable for indirect fire weapon training and aerial gunnery exercises. The area is impacted by small arms and dud-producing munitions and is the ground and associated airspace within Tanana Flats used to contain fired or launched ammunition and explosives and resulting fragments, debris, and components from various weapon systems. Other compatible uses include remote monitoring of natural resources and military impacts and prescribed burning to reduce fire hazards and improve habitat. Maneuver training, travel, and other military training is prohibited in this unit due to the hazard of unexploded ordnance. Commanders will ensure that safety personnel maintain surveillance of the area and

will have the officer-in-charge suspend firing immediately at the approach of aircraft. Other activities that are not compatible with the Alpha Impact Area subunit include any on-the-ground natural resources management, mechanical digging in wetlands without a permit from the Corps of Engineers, hunting, fishing, trapping, bird watching, ORVs including airboats, dog mushing, airboats, camping, new construction, easements, or leases.

Public Access: Public access in the Training Area subunit is allowed for recreation subject to safety restrictions and military security, when access does not impair the military mission, as determined by the installation commander (Figure 3-3a). Access into the Alpha Impact Area subunit is prohibited. Military personnel may request permission to enter the subunit and, if granted, they must be accompanied by EOD personnel. There is no public access allowed in the Alpha Impact Area or impact area buffer because of the risk of unexploded ordnance.

3.4.7.2.3 Yukon Training Area Ecological Management Unit

Location and Description: The YTA ecological management unit is contained within the Steese-White Mountains ecodistrict, within the Interior Highlands ecoregion. The YTA unit is comprised almost entirely of the Chena-Salcha Highlands ecosubdistrict. The Chena-Salcha Highlands is a mountainous area of weathered bedrock in the alpine areas, residual soils on upper slopes, upland loess near the Tanana River, upland retransported deposits, lowland retransported deposits on lower slopes, and headwater streams. The areas are hydrologically linked by surface and groundwater flow. Permafrost is present on northern and lower slopes and absent on southern slopes. White spruce-birch-aspen forests are found on southern slopes, black spruce forests are found on northern slopes, riverine willows are found in drainages, and alpine tundra is commonly located on high exposed ridges.

The YTA unit is also made up of small regions of Stuart Creek Lowlands and French-Moose Creek Lowlands ecosubdistricts.

Land Use: YTA subunits 1, 2, and 4 are suitable for small arms, platoon to brigade-sized exercises,

company-sized live-fire exercises, road marches, and bivouacs. These areas are primarily used for large-scale training exercises, airborne drops, and winter bivouacs. The recommended time for military activities involving mechanized vehicles is between freeze-up and spring break-up. Husky DZ will sustain year-round use. Air-mobile and air-drop operations may be conducted in this area. Permission must be obtained from the Air Force to use the Chena Annex at the northern end of Transmitter Road. Other compatible uses include natural resources management, habitat improvement, firewood sales, hunting, fishing, trapping, bird watching, hiking, skiing, dog sledding, and ORV use. Activities that are not compatible with the YTA 1, 2 and 4 include airboats, digging in wetlands without a permit, and any permanent, nonmilitary structures, easements, or leases.

YTA subunits 3, 5, 6, and 7 are suitable for indirect fire weapons, platoon to brigade-sized exercises, road marches, and bivouacs. It is also used for large-scale exercises, year-round bivouac, land navigation, and maneuver using SUSVs. The recommended time for military activities involving mechanized vehicles in valley areas is between freeze-up and spring break-up. Other military activities can be conducted year-round. There are no areas off-limits to training. Other compatible uses include natural resources management, habitat improvement, hunting, fishing, trapping, bird watching, hiking, skiing, dog sledding, and ORV use. Activities that are not compatible with these areas include digging in wetlands without a permit from the Corps of Engineers and any permanent, nonmilitary structures, easements, or leases.

Public Access: The YTA ecological management unit is land withdrawn from public use for military use (figure 3-3a). The public has access to the area for recreational and subsistence purposes. Access to the area can be restricted when non-participants may be endangered by military activities. Once the public has been notified by the local news media, selected main roads leading to the area requested for the exercise will be closed. Temporary road barricades (sawhorses, concertina wire, etc.) supplied by the using unit will be placed at appropriate

points along the road network to warn approaching non-participants. Road barriers will be manned by participating units with knowledge of dates and times of the road closure. Once training plans have been finalized, presented to Range Control, and notice given to the public, changes are not accepted. Areas not authorized for public use include impact areas, rappelling towers, small arms ranges, and areas published in the weekly bulletin as being a danger area, restricted area, or off-limits. Permanently closed areas are Stuart Creek Impact Area, Air Force Technical Applications Center (AFTAC), Charlie and Bravo Battery Sites, and the Manchu Firing Range.

3.4.7.2.4 Fort Wainwright / Donnelly Training Area Land Bridge

Location and Description: USARAK has established a land bridge corridor linking Fort Wainwright TFTA and Donnelly Training Area through a land use permit with the state. This corridor, on state-owned land, is about 8 miles long and 270 yards wide, paralleling the Tanana River.

Land Use: The permit allows the Army to construct a winter trail. The trail is roughly 20 feet wide, except for occasional two-lane sections, which are approximately 40 feet wide. The corridor eliminates the need to use Tanana River ice bridges and roads. The corridor provides a 1,222,000-acre contiguous training area, capable of supporting large force-on-force operations (U.S. Army Alaska 1996).

USARAK has used this corridor since the 1960s by obtaining a year-to-year permit from the state. The most recent use occurred in the 1970s. A recently concluded action established this corridor on a recurring basis using a limited land use permit from the state. No land changed ownership. Current plans are for limited use of the land-bridge corridor, as large force-on-force maneuvers are not scheduled as frequently as they have been in the past. This land bridge corridor action is in anticipation of such use, should these large-scale exercises be repeated in the future.

Public Access: There are no public access restrictions on this permitted land (Figure 3-3b).

Figure 3-3b. Winter Corridor.

See FWA INRMP Maps\FWA INRMP FIG03-03b.PDF.

3.5 Ecosystem Management Alternatives

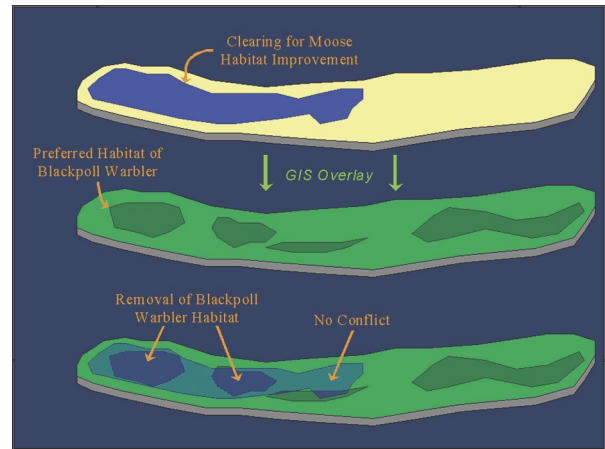
Current Management:

Ecosystem management has not been implemented on Fort Wainwright. Under current management, all ongoing projects will be continued. Current public access policy, as outlined in Sections 3.4.5.1 and 3.4.5.2, will remain in effect. Current encroachment policy, as outlined in Section 3.4.5.3, and trespass policy, as described in Section 3.4.5.4, will also remain in effect. Fire management will continue, with full, modified, or limited protection, based on location, for all subunits, and limited protection for all impact areas. USARAK will comply with Section 404 of the Clean Water Act and obtain permits if necessary to dig or disturb wetlands. Hunting and fishing programs will continue. USARAK will manage recreation by controlling access.

Under the current management alternative, no new ecosystem management planning, inventory, monitoring, or management actions, as listed under the proposed management section below, will be conducted after current management actions cease in 2002.

Proposed Management:

Under the proposed management alternative, USARAK will manage the Main Post ecological management unit as an intensive management area, the Training Areas subunits as modified management areas, the Alpha Impact Area subunit as a limited management area, the YTA subunits 1, 2, and 4 as full management areas, the YTA subunits 3, 5, 6, and 7 as modified management areas, the Stuart Creek Impact Area and AFTAC as limited management areas, and the Fort Wainwright/Donnelly Training Area Land Bridge as a modified management area (see Section 3.4.7.2 for the discussion of ecological management levels). USARAK will maintain public access as outlined in Sections 3.4.5.1 and 3.4.5.2, will limit encroachment as outlined in Section 3.4.5.3, and will manage trespass as outlined in Section 3.4.5.4. Fire protection categories for all subunits will be full,



Ecosystem management alternatives are developed on the GIS, which is used to identify land use compatibilities and conflicts from military use, recreational use, natural resource projects and species habitat preferences overlays.

modified, or limited protection based on location except for impact areas, which will receive limited protection.

Under the proposed management alternative, USARAK will comply with all laws, regulations, and executive orders pertaining to natural resources management. USARAK will complete ongoing projects, conduct annual updates and five-year rewrites of the ecosystem management plan and the aerial monitoring plan, and conduct full implementation of ecosystem management projects. USARAK will conserve physical resources by conducting Integrated Training Area Management (ITAM), watershed management, and minerals management. USARAK will conserve biological resources by conducting wetlands management, forest management, fish and wildlife management, endangered species management, pest management, and urban area management. USARAK will integrate social (human) resources into ecosystem management by conducting education, awareness and public outreach; conservation enforcement; outdoor recreation management; and cultural resources management. USARAK will support ecosystem management decision-making through implementation of NEPA, GIS, and other decision support systems, and integration with other land management programs such as RTLTP and RMP.

Proposed Management Objectives:

- Maintain public access as outlined in Sections 3.4.5.1 and 3.4.5.2.
- Limit encroachment as outlined in Section 3.4.5.3.
- Manage trespass as outlined in Section 3.4.5.4.
- Manage Main Post subunit as an intensive management area.
- Manage Training Areas subunits as modified management areas.
- Manage Alpha Impact Area subunit as a limited management area.
- Manage YTA subunits 1, 2, and 4 as full management areas.
- Manage YTA subunits 3, 5, 6, 7 as modified management areas.
- Manage Stuart Creek Impact Area and AFTAC as limited management areas.
- Manage Fort Wainwright/Donnelly Training Area Land Bridge as a modified management area.

Other Management Alternatives Considered and Eliminated: There are many different options for conducting ecosystem management on Fort Wainwright. However, funding high priority projects is the only option that will fully cover USARAK's stewardship responsibilities to manage Fort Wainwright. Options to provide more intensive management of the ecosystem at Fort Wainwright are cost prohibitive. There are no other options for public access. Public access is already allowed to the maximum extent possible around the military mission. Encroachment is not compatible with the long-term sustainable military mission and therefore no options other than military use can be considered.

3.6 Ecosystem Management Responsibilities

Ecosystem management on Fort Wainwright is the primary responsibility of USARAK. Coordinating the many land uses on post is the responsibility of DPTSM Range Control, while management of natural resources and recreation is the responsibility of DPW. Most commercial uses and all leases, easements, and rights-of-way must be permitted by BLM, with concurrence by USARAK. The BLM, USFWS, and ADF&G play integral roles in ecosystem management, both on the installation and in regional ecosystem management efforts.

Table 3-4. Proposed Management Projects.

OBJECTIVE	RESPONSIBLE FOR IMPLEMENTATION	PRIORITY	IMPLEMENTATION				
			2002	2003	2004	2005	2006
Conduct Soil and Water Quality Monitoring	USARAK Conservation	High	x	x	x	x	x
Conduct Conservation Enforcement	USARAK Conservation	High	x	x	x	x	x
Conduct Wetlands Monitoring	USARAK Conservation	High	x	x	x	x	x
Conduct Wetlands Management	USARAK Conservation	High	x	x	x	x	x
Conduct Endangered, Threatened, and Rare Species Management	USARAK Conservation	High	x	x	x	x	x
Conduct Erosion Control and Streambank Stabilization	USARAK Conservation	High	x	x	x	x	x
Conduct Fish and Wildlife Monitoring	USARAK Conservation	High	x	x	x	x	x
Conduct Geographic Information Systems Projects	USARAK Conservation	High	x	x	x	x	x
Conduct Soil Planning-level Survey Update	USARAK Conservation	High	x	x	x	x	x
Conduct Floristics Planning-level Survey Update	USARAK Conservation	High	x	x	x	x	x
Conduct Vegetation Planning-level Survey Update	USARAK Conservation	High	x	x	x	x	x
Conduct Wetlands Planning-level Survey Update	USARAK Conservation	High	x	x	x	x	x
Conduct Fauna Planning-level Surveys Update	USARAK Conservation	High	x	x	x	x	x
Conduct Environmental Awareness	USARAK Conservation	High	x	x	x	x	x
Conduct Natural and Cultural Resources Education and Awareness	USARAK Conservation	High	x	x	x	x	x
Conduct Soil and Water Quality Management	USARAK Conservation	High	x	x	x	x	x
Conduct Recreational Use Management	USARAK Conservation	High	x	x	x	x	x
Conduct Training Requirements Integration	USARAK Conservation	High	x	x	x	x	x
Conduct Land Condition Trend Analysis Monitoring	USARAK Conservation	High	x	x	x	x	x
Conduct Land Rehabilitation and Maintenance	USARAK Conservation	High	x	x	x	x	x
Conduct Special Interest Areas Management	USARAK Conservation	High	x	x	x	x	x
Conduct Fish and Wildlife Management	USARAK Conservation	High	x	x	x	x	x
Conduct Recreational Use Monitoring	USARAK Conservation	High	x	x	x	x	x
Conduct Habitat Management	USARAK Conservation	High	x	x	x	x	x
Conduct Forest Inventory	USARAK Conservation	High	x	x	x	x	x
Conduct Forest Management	USARAK Conservation	High	x	x	x	x	x
Conduct Fire Inventory	USARAK Conservation	High	x	x	x	x	x

